REMARKS

Reconsideration of this application in view of the below remarks is respectfully requested. Claims 1 – 5, 9 – 15, 19 – 20 and 22 – 23 are pending in the application with Claims 11, 19 and 20 having been previously withdrawn. Of the claims elected for prosecution at this time, Claims 1 – 3, 9, 10, 12 and 13 are in independent form.

I.   Objection to Claims 5, 14, 15, 22 and 23

Claims 5, 14, 15, 22 and 23 are objected for several minor grammatical errors. Specifically, the Examiner asserts that the word "and" at line 4 should be replaced with "or" in Claims 5, 15 and 23; and "...a MPEG-7..." should be replaced with "...said MPEG-7..." in Claims 14 and 22. In response Claims 5, 14, 15, 22 and 23 have been amended in a manner believed to overcome the objection. Accordingly, Applicants' respectfully request withdrawal of the objection to Claims 5, 14, 15, 22 and 23.

II.   Rejection of Claims 1 – 4, 9, 10, 12 – 14 and 22 Under 35 U.S.C. § 102(e)

Claims 1 – 4, 9, 10, 12 – 14 and 22 are rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Publication No. 2003/0026476 (hereinafter, "Shiiyama").

Shiiyama discloses calculating color layout descriptors from an image. In contrast, the present invention, as recited in the claims, performs extraction of MPEG-7 ColorLayout features from respective frames of an image sequence (i.e. video). In addition, the apparatus disclosed in Shiiyama calculates a feature value representative of the single image. However, the claimed invention recites: "...calculating a representative color layout feature representative of said image sequence from a group of said MPEG-7 Colorlayout features of all frames extracted by said feature extracting unit." Thus, the claimed invention generates a color layout feature which represents the entire image sequence rather than a single image, as taught in Shiiyama.

It is well-settled by the Courts that "[A]nticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim." Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company, et al., 730 F.2d 1452, 221 USPQ 481 (Fed. Cir., 1984).

Therefore, as demonstrated above, because Shiiyama does not disclose each and every element recited in the present claims, Applicants respectfully submit that the rejection has been obviated. Accordingly, Applicants respectfully request withdrawal of the rejection with respect to Claims 1 – 4, 9, 10, 12 – 14 and 22under 35 U.S.C. § 102(e).

III.   Rejection of Claims 5, 15 and 23 Under 35 U.S.C. § 103(a)

Claims 5, 15 and 23 are rejected under 35 U.S.C. § 103(a) as allegedly obvious over Shiiyama.

The Examiner contends that it would have been obvious to one of ordinary skill in the art to calculate a median, because the median of a series containing an even number of elements is the average of the two middle elements. However, Shiiyama fails to disclose or suggest identifying the middle elements (pixel values). Therefore, Shiiyama would require significant modification in order to determine the median rather than the mean.

Moreover, using a median has certain advantages over, and yields results which are substantively different than, a mean. Specifically, in the case where a frame contains outlier data (i.e. pixel) with respect to the other target frames of an image sequence, the representative color layout feature of the frame sequence can be calculated without being affected by the outlier data.

For example in the case of a video of a press conference, flashes will fire from nearby cameras at random times, which create outlier pixels in the video frame. Clearly a frame containing the flash will have a region that is significantly brighter than the same region in the

preceding frame. Thus the MPEG-7 Colorlayout feature of the frame greatly changes as compared with the Colorlayout feature of the preceding frame when a mean, or average, calculation is used to compute the Colorlayout feature of each frame. However, by using a median calculation for computing a Colorlayout feature of each frame, it is possible to reduce the influence of the flash (outlier).

Therefore because the results derived from a mean and a median are significantly different, one of ordinary skill in the art would not simply replace a mean calculation with a median calculation given the teachings of Shiiyama. Accordingly, Applicants respectfully request withdrawal of the rejection with respect to Claims 5, 15 and 23 under 35 U.S.C. § 103(a) over Shiiyama.

CONCLUSIONS

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1 – 5, 9, 10, 12 – 15, 22 and 23 are believed to be in condition for allowance and patentably distinguishable over the art of record.

Respectfully submitted,

Paul J. Esatto, Jr.
Registration No. 30,749

SCULLY, SCOTT, MURPHY & PRESSER, P.C.
400 Garden City Plaza - Ste. 300
Garden City, New York 11530
(516) 742-4343

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